

UNITED STATES DEPARTMENT OF AGRICULTURE NATURAL RESOURCES CONSERVATION SERVICE

Ecological Site Description

Site name: STONEY SLOPE

Site number: R-270ZY039PR

Major Land Resource Area: 270 Humid Mountains and Valleys

Interstate correlation: NONE

Physiographic features: There are three distinct elevation ranges in this area and possess the highest precipitation and lowest temperatures. Surface water from precipitation, perennial streams, and lakes are abundant. Ground water is limited to water that seeps into the soil and is stored in the dense and massive underlying volcanic rock.

Climatic features

Frost-free period: 365 DAYS

Freeze-free period: 365 DAYS

Mean annual precipitation: 60 TO 80 INCHES

Mean annual air temperature: (24°C) 77 to 80°F

Mean annual soil temperature:

Monthly moisture and temperature distribution:

	Mean Precipitation (inches)	Percent Precipitation (%)	Mean Temperature (F)
January	.78	2.36	76
February	.72	2.18	76
March	.86	2.60	77
April	1.92	5.82	78
May	2.92	8.85	80
June	3.13	9.49	81
July	2.91	8.82	82
August	4.45	13.50	82
September	5.26	15.95	81
October	5.63	17.08	81
November	3.18	9.64	79
December	1.20	3.64	77
Mean annual	32.96		

Other climatic features: A rainy season prevails from July to November and a pronounced dry season occurs during the remainder of the year. Hurricanes are most

likely to occur August through November, and are characterized by strong winds and torrential rains.

Associated water features: Ground water is limited to water seeps into the soil and is stored in the dense and massive underlying volcanic rock.

Elevation Aspect: 150 to 1300 ft.

Percent Slope: 12 to 20

Soils: Soils of this site are moderately deep, well drained, fine textured, strongly acid, formed from highly weathered serpentine rocks. They are on moderate sloping to steep side slopes in the serpentine hills.

Major Soil Taxonomic Unit correlated to this site included:

Rosario, RsD2
Santa Marta, SmE2

Plant communities:

This site is dominated by tall bunchgrass on lower slopes and gentle hillsides. Tall shrubs and coarse forbs are quite common. Grasses constitute approximately 90% of the vegetative composition; forbs and shrubs make about 6% and trees the remaining 4%.

Major plant species composition

Some introduced grass species are adapted to this site. These highly palatable species include guinea grass, pangola grass and stargrass. They exist in varying levels of dominance due to past or existing grazing pressure.

GRASSES AND GRASSLIKE

Scientific Symbol	Common Name	Group	Pounds per Acre	Percent by Weight	Percent Allowed For Group
ANBI	Foxtail	1			
ANGL2	Bushy beardgrass	1			
ANLE	Beardgrass	1			
ANSE8	Barbon grass	1			
ARCO11	Arundinella	1			
ARPO3	Puertorican three awn	1			
AXCO	Tropical carpetgrass	1			
ERCA 16	Flame (Moco de pavo)	1			

LADI3	Florida tibisee	1			
LELA7	Lanilla	1			
PACO14	Creeping wheatgrass	1			
PALA8	Woodland grass	1			
PAMO3	Yerba menuda	1			
PANO2	Bahia grass	1			
PAPL3	Brownseed paspalum	1			
PARU	Matojito	1			
SEGE	Knotroot bristlegrass	1			
SPIN4	Whorled dropseed	1			

FORBS

Scientific Symbol	Common Name	Group	Pounds per Acre	Percent by Weight	Percent Allowed For group
CALIC3	Calycogonium coeruleum	2			
CRPO4	Guerrero	2			
ELMD5	Lengua de vaca	2			
ELVI7	Jaboncillo	2			
EPCO3	Cockel shell orchid (Canuela)	2			
JAPE	Aguinaldo azul	2			
MEIN7	Turk's cap (melon de costa)	2			
ODAC	Spiny fern	2			
OPRE2	Suckers	2			
PARU3	Flor de pasion	2			
PIAN	Piña cortadora	2			
PIMI2	Artillery plant	2			
POHE6	Mata de duna	2			
PTAQC	Felpa	2			
SIAG	Horseweed	2			
STPE2	Bajuco de San Pedro	2			
VAJA	Valerianodes jamaicense	2			
WAIN	Basora prieta	2			
DECA13	Tick trifol	2			
EXPRE	Bejuco colorado	2			

BRVI5	Flor de conchitas	2			
BOVE	Boton blanco	2			
VESE2	Long shot	2			

Shrubs and Trees

Scientific Symbol	Common Name	Group	Pounds per Acre	Percent by Weight	Percent Allowed For group
AGMI4	Agave	3			
AMEL	TEA	3			
BUSA2	Almendron	3			
BYCU	Palo de doncella	4			
BYSP	Maricao	4			
CLHI3	Camasey	4			
CLMI2	Cupey trepador	3			
CLRO	Balsam fig (cupey)	4			
COAL	Spanish elm (Capa prieto)	4			
CODO	Cock's spur	3			
LACAA	Cariaquillo espinoso	3			
LAIN2	Wild sage	3			
MILA8	Camasey	3			
PIUN	Catcalw blackbead	3			
PLAL	Nosegay tree (alheli blanco)	3			
RAAC	Chritmas tree	3			
ROIN4	Cordoboncillo	3			
SAFL7	Wattapama	3			
SYJA	Rose apple (Pomarrosa)	3			
ZAMO	Yellow prickly	3			

Ground Cover and Structure

	Height Above the Ground											
	Not applicable		6 to 12 inches		12 to 24 inches		24 to 60 inches		60 to 80 inches		180 to 240 inches	
	% Ground cover	% Canopy cover	% Ground cover	% Canopy cover	% Ground cover	% Canopy cover	% Ground cover	% Canopy cover	% Ground cover	% Canopy cover	% Ground cover	% Canopy cover
Trees												
Shrubs									1	5		
Grasses and grasslikes							10	70				
Forbs					2	10						
Cryptogams												
Coarse fragments												
Bare ground												
Litter												

Transition Pathways:

The native climax grass species are generally lightly grazed. Livestock graze sparingly the coarse rank grasses due to the low palatability. Therefore many of the species relative abundance in this site is due to the competitiveness rather than to their relative palatability. However, if guinea grass, pangola or star grass are introduced and properly managed, they can provide a high level of forage production. However, if the introduced species are severely grazed, the less palatable native species will replace them in the plant community.

Total annual production: 1500 lbs/acre

Plant Growth Curves:

Growth curve number: PR001

Growth curve name: PR PLANT GROWTH CURVE

Growth curve description: Native and naturalized grasslands.

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
6	5	4	7	12	10	9	10	11	10	9	7

Animal Community:

This site is important for several wildlife species. Major species using the site include:

Anolis spp.

Buteo jamaicesce (Guaraguao)
Cattle egret
Eleutherodactylus spp.
Falco sp. (Falcon)
Monkey's (Patas)
Puertorican boa (Epicrates inornatus)
White egret

Associated sites:

Similar sites

Plant communities, production, and vigor of this site is not similar enough to other sites in the region to cause a problem or concern.

Site documentation

Author: M. Montes, E. Más

Revised: 05/2002, E. Más, J. Lugo, S. Ríos

Supporting data for site development: Supporting data include clipping studies, and historical writing of the area. More documentation and study are needed to fully understand this site and the transitions that occur.

Sampling techniques

SCS-Range 417

Type locality: Cerro Las Mesas, Mayagüez, PR; Sabana Alta, Cabo Rojo, PR

Field Offices: San Germán, Mayagüez

References:

USDA, NRCS. 1997. National Range and Pasture Handbook.

USDA, SCS. Soil Survey's

Site Approval:

This site has been reviewed and approved for use:

USDA NRCS Resource Conservationist

Date

